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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/764,742

01/26/2004

Roger P. Wolf

03-006

8637

29883

7590

08/01/2006

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EXAMINER

FERNSTROM, KURT

ART UNIT

PAPER NUMBER

3711

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/764,742	Applicant(s) WOLF ET AL.	
	Examiner Kurt Fernstrom	Art Unit 3711	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 22 and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Foster. Jackson discloses in Figures 1-5 and in the specification a device and method for teaching mathematics comprising a work surface and a plurality of movable elements, where each element comprises a visible mathematical symbol and can be selectively placed on the work surface via an attachment member on the back of the pieces. Jackson further discloses in column 3, lines 47-49 that in one embodiment the board and pieces may be magnetic, in which case the pieces are inherently slidable. Jackson fails to disclose that the movable elements have corresponding Braille indicia thereon as recited. Foster discloses in column 8, lines 39-50 a display board with pieces which have Braille markings on them. This feature is clearly intended for use by visually impaired students, thus suggesting the claimed method. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Jackson by providing markings for visually impaired users for the purpose of allowing such users to learn using the device. With respect to claim 45, it is not clear how the boundaries of the claim are defined.

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"Enlarged" is a relative term which does not distinguish the invention from the prior art. The symbols of Jackson are large enough to be read by at least some visually impaired people.

Claims 2-4, 12 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Foster, and further in view of Smith. Jackson as viewed with Foster discloses all of the limitations of the claims with the exception of the frame which defines an abutment. Such frames are well known in display devices, as shown for example in Figure 1 and in the specification of Smith. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Jackson as viewed with Foster by providing an abutment-defining frame for the purpose of more clearly defining the boundaries of the display area. With respect to claims 4 and 25, it is not clear how the boundaries of the claim are defined. "Enlarged" is a relative term which does not distinguish the invention from the prior art. The symbols of Jackson are large enough to be read by at least some visually impaired people. With respect to claim 12, Official Notice is taken that Nemeth Braille is a known means of communication, as acknowledged by applicant in the specification, and would have been obvious to provide in lieu of standard Braille indicia.

Claims 5-11, 13-19 and 26-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Foster and Smith, and further in view of Olivera. Jackson as viewed with Foster and Smith discloses all of the limitations of the claims with the exception of the features pertaining to the placement and storage of the

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elements. Olivera discloses in Figure 1 and in the specification a display device and method comprising elements each having a symbol, where the elements are stored in stacked fashion in compartments around the perimeter of the device when not in use, each compartment containing a plurality of elements each having a specific symbol. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Jackson as viewed with Foster and Smith by storing like elements in stacks in compartments around the perimeter of the display area for the purpose of making it easier for a user to selectively obtain and use a desired symbol in the display.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Foster, and further in view of Foresman. Jackson as viewed with Foster discloses all of the limitations of the claims with the exception of the symbols including an equals sign, as Jackson discloses each of the other recited elements.

Foresman discloses in Figure 1 and in the specification a display device for creating mathematical equations comprising an equals sign. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Jackson as viewed with Foster by providing an equals sign for the purpose of allowing a user to demonstrate that relationship between numbers.

Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Foster, Smith and Olivera, and further in view of Foresman. Jackson as viewed with Foster, Smith and Olivera discloses all of the limitations of the claims with the exception of the symbols including an equals sign, as Jackson discloses each of the other recited elements. Foresman discloses in Figure 1 and in the

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specification a display device for creating mathematical equations comprising an equals sign. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Jackson as viewed with Foster, Smith and Olivera by providing an equals sign for the purpose of allowing a user to demonstrate that relationship between numbers.

Claims 47-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Foster, and further in view of Olivera. Jackson as viewed with Foster discloses all of the limitations of the claims with the exception of the features pertaining to the placement and storage of the elements. Olivera discloses in Figure 1 and in the specification a display device and method comprising elements each having a symbol, where the elements are stored in stacked fashion in compartments around the perimeter of the device when not in use, each compartment containing a plurality of elements each having a specific symbol. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Jackson as viewed with Foster by storing like elements in stacks in compartments around the perimeter of the display area for the purpose of making it easier for a user to selectively obtain and use a desired symbol in the display.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-53 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kurt Fernstrom whose telephone number is (571) 272-4422. The examiner can normally be reached on M, T, Th 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Kim can be reached on 571 272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KF  
July 24, 2006



**KURT FERNSTROM**  
**PRIMARY EXAMINER**